

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

$\alpha$ -Amylase Mutants

the specification of which (check only one item below):

☐ is attached hereto

☒ was filed as United States application

Serial No. to be assigned

on July 18, 1996

and was amended

on \_\_\_\_\_

☐ was filed as PCT international application

Number \_\_\_\_\_

on \_\_\_\_\_

and was amended under PCT Article 19

on \_\_\_\_\_

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:

COUNTRY (if PCT, indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC 119
Denmark	0128/95	February 3, 1995	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Denmark	1192/95	October 23, 1995	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Denmark	1256/95	November 10, 1995	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

**COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY**  
(Includes Reference to PCT International Applications)

Applicant's Docket Number:  
4394400-US

I hereby claim the benefit under Title 35, United States Code §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this applications is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT  
UNDER 35 U.S.C. 120:

U.S. APPLICATIONS		STATUS (Check one)		
U.S. APPLICATION NUMBER	U.S. FILING DATE	Patented	Pending	Abandoned
08/600,908	February 13, 1996		X	
PCT APPLICATIONS DESIGNATING THE U.S.				
APPLICATION NO.	FILING DATE	US SERIAL NUMBER ASSIGNED (if any)		
PCT/DK96/00057	February 5, 1996		X	

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.  
Steve T. Zelson Elias J. Lambiris Cheryl H. Agris Karen A. Lowney James J. Harrington  
Reg. No. 30,335 Reg. No. 33,728 Reg. No. 34,086 Reg. No. 31,274 Reg. No. 38,711

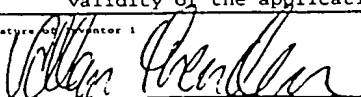
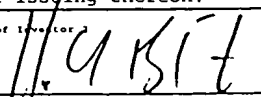
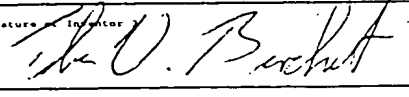
Send Correspondence to: Steve T. Zelson, Esq.  
Novo Nordisk of North America, Inc.  
405 Lexington Avenue, Suite 6400  
New York, New York 10174-6401

Direct Telephone Calls To:

Steve T. Zelson  
(212) 867-0123

	Full Name of Inventor	Family Name	First Given Name	Second Given Name
		Svendsen	Allan	
	Residence & Citizenship	City	State or Foreign Country	Country of Citizenship
		DK-3460 Birkerød	Denmark	Denmark
	Post Office Address	Post Office Address	City	State & Zip Code/Country
		Bakkeleddet 28	DK-3460 Birkerød	Denmark
	Full Name of Inventor	Family Name	First Given Name	Second Given Name
		Bisgård-Frantzen	Henrik	
	Residence & Citizenship	City	State or Foreign Country	Country of Citizenship
		DK-2800 Lyngby	Denmark	Denmark
	Post Office Address	Post Office Address	City	State & Zip Code/Country
		Sandkrogen 27	DK-2800 Lyngby	Denmark
3	Full Name of Inventor	Family Name	First Given Name	Second Given Name
		Borchert	Torben	Vedel
	Residence & Citizenship	City	State or Foreign Country	Country of Citizenship
		DK-2200 Copenhagen N	Denmark	Denmark
	Post Office Address	Post Office Address	City	State & Zip Code/Country
		Dagmarsgade 34, 1ejl. 17	DK-2200 Copenhagen N	Denmark

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature of Inventor 1	Signature of Inventor 2	Signature of Inventor 3
		
Date	Date	Date
31/7 1996	5/8-96	6-8-96

CERTIFICATE OF MAILING

I hereby certify that this paper and every paper referred to therein as being enclosed is being deposited with the U.S. Postal Service as first class mail, postage prepaid, in an envelope addressed to: Commissioner of Patents & Trademarks, Washington, DC 20231.

on \_\_\_\_\_ (Date of Deposit)

Date

Name

EXPRESS MAIL CERTIFICATE

Date 6/8/99 Label No. 595859379

I hereby certify that, on the date indicated above I deposited this paper or fee with the U.S. Postal Service & that it was addressed for delivery to the Commissioner of Patents & Trademarks, Washington D.C. 20231 by "Express Mail Post Office to Addressee" service.

Name (Print)

Signature

Docket No.: 0776/1F216-US2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Allan SVENDSEN, *et al.*

Serial No.: To be Assigned  
(Continuation of 08/683,838)

Art Unit:

Filed: Concurrently

Examiner:

For:  $\alpha$ -AMYLASE MUTANTS

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**ASSOCIATE POWER OF ATTORNEY**

June 8, 1999

The Honorable Assistant Commissioner of  
Patents and Trademarks  
Washington, D.C. 20231

Sir:

The undersigned attorney of record in the above-identified application hereby appoints:

Michael J. Sweedler (No. 19,937)  
S. Peter Ludwig (No. 25,351)  
Paul Fields (No. 20,298)  
Joseph B. Lerch (No. 26,936)

Melvin C. Warner (No. 26,272)  
Ethan Horwitz (No. 27,646)  
Adda C. Gogoris (No. 29,714)  
Martin E. Goldstein (No. 20,869)  
Marc S. Gross (No. 19,604)  
Bert J. Lewen (No. 19,407)  
Henry Sternberg (No. 22,408)  
Peter C. Schechter (No. 31,662)  
Robert Schaffer (No. 31,194)  
Robert C. Sullivan, Jr. (No. 30,499)  
Ira J. Levy (No. 35,587)  
Joseph R. Robinson (No. 33,448)

located at Darby & Darby, P.C., 805 Third Avenue, New York, NY 10022-7513, as  
associate attorneys with full power to prosecute said application, and to transact all  
business in the United States Patent and Trademark Office in connection therewith.

Please forward all communications to:

Adda C. Gogoris  
Darby & Darby, P.C.  
805 Third Avenue  
New York, New York 10022-7513  
Telephone No. (212) 527-7700  
Facsimile No. (212) 753-6237

Dated: June 8, 1999

  
Elias J. Lambiris (Reg. No. 33,728)

11/17/99 10:10:10 (HAR022.WP1)

Docket No. 0776/1F216-US2



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

JANUARY 10, 1997

PTAS

STEVE T. ZELSON, ESQ  
NOVO NORDISK OF NORTH AMERICA, INC  
405 LEXINGTON AVENUE STE. 6400  
NEW YORK, NY 10174-6401



\*100304155A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

10C518 U.S. PTO  
09/327563  
06/08/99

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231.

RECORDATION DATE: 11/12/1996

REEL/FRAME: 8217/0630  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

BISGARD-FRANTZEN, HENRIK

DOC DATE: 07/31/1996

ASSIGNOR:

SVENDSEN, ALLAN

DOC DATE: 08/06/1996

ASSIGNOR:

BORCHERT, TORBEN VEDEL

DOC DATE: 08/08/1996

ASSIGNEE:

NOVO NORDISK A/S  
NOVO ALLE  
DK-2880 BAGSVAERD, DENMARK

SERIAL NUMBER: 08683838  
PATENT NUMBER:

FILING DATE: 07/18/1996  
ISSUE DATE:

RECEIVED  
JAN 21 1997

SHIRLIE SIMON, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

11-14-1996



NOV 12 1996

FORM PTO-1595  
(Rev. 6-93)  
OMB No. 0651-0011 (exp. 4/94)

MR11-12-96

100304155  
PATENTS ONLY

RECEIPT ACCEPTED U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

To the Hon. Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Henrik Bisgård-Frantzen  
Allan Svendsen  
Torben Vedel Borchert

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 2. Name and address of receiving party(ies):

Name: Novo Nordisk A/S

Internal Address:

Street Address: Novo Alle

DK-2880 Bagsvaerd, Denmark

Additional name(s) & address(es) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: July 31, 1996, August 6, 1996 &  
August 8, 1996

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s) S.N. 08/683,838

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of the party to whom correspondence concerning document should be mailed:

Name: Steve T. Zelson, Esq.

Internal Address:

Novo Nordisk of North America, Inc.

Street Address: 405 Lexington Avenue,  
Suite 6400

City: New York State: NY Zip: 10174-6401

## 6. Total number of applications and patents involved: one

7. Total fee (37 CFR 3.41) ..... \$ 40.00

☐ Enclosed☒ Authorized to be charged to deposit account

## 8. Deposit account number:

14-1447

(Attach duplicate copy of this page if paying by deposit account)

WT04238 11/13/96 08683838

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14-1447 040 581

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## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Elias J. Lambiris, Esq.  
Name of Person Signing

Signature

November 6, 1996  
Date

Total number of pages including cover sheet, attachments, and document: 3

**ASSIGNMENT OF APPLICATION FOR PATENT**

WHEREAS:

Henrik Bisgård-Frantzen, a citizen of Denmark, residing at Sandkrogen 27, DK-2800 Lyngby, Denmark;

Allan Svendsen, a citizen of Denmark, residing at Bakkeleddet 28, DK-3460 Birkerød, Denmark; and

Torben Vedel Borchert, a citizen of Denmark, residing at Dagmarsgade 34, lejl. 17, DK-2200 Copenhagen N, Denmark.

(hereinafter ASSIGNORS), have made a discovery or invention entitled:

$\alpha$ -Amylase Mutants

for which application of Letters Patent of the United States has been filed on July 18, 1996, under Serial No. to be assigned, and

WHEREAS:

Novo Nordisk A/S, a corporation organized under the laws of Denmark, located at Novo Alle, DK-2880 Bagsvaerd, Denmark (hereinafter ASSIGNEE), is desirous of acquiring the entire interest in, to and under said invention and in, to and under Letters Patent or similar legal protection to be obtained therefor in the United States and in any and all foreign countries.

NOW, THEREFORE, in consideration of the payment by ASSIGNEE to ASSIGNORS of the sum of one dollar (\$1) or the equivalent thereof, the receipt of which is hereby acknowledged, and for other good and valuable consideration, ASSIGNORS hereby sell, assign and transfer to ASSIGNEE, its successors, legal representatives and assigns, the full and exclusive rights, titles and interests to said discovery or invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries to be obtained for said invention by said application or any continuation, division, renewal, extension, substitute or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted.

SAID ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks of the United States of America and any Official of any country or countries foreign to the United States of America whose duty it is to issue Letters Patent on applications as aforesaid, to issue all such Letters Patent for said discovery or invention to



the ASSIGNEE, as assignee of the entire right, title and interest in, to and under the same, for the sole use and behalf of the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

SAID ASSIGNORS hereby covenant that we have full right to convey the entire right, title and interest herein sold, assigned, transferred and set over.

AND SAID ASSIGNORS hereby further covenant and agree that the ASSIGNEE, its successors, legal representatives, and assigns, may apply for foreign Letters Patent on said discovery or invention and claim the benefits of the International Convention, and that we will, at any time, when called upon to do so by the ASSIGNEE, its successors, legal representatives, or assigns, communicate to the ASSIGNEE, its successors, legal representatives, or assigns, as the case may be, any facts known to us respecting said discovery or invention, and execute and deliver any and all lawful papers that may be necessary or desirable to perfect the title to the said discovery or invention, the said applications and the said Letters Patent in the ASSIGNEE, its successors, legal representatives and assigns, and that if reissues of the said Letters Patent or disclaimers relating thereto, or divisions, continuations, or refilings of the said applications, or any thereof, shall hereafter be desired by the ASSIGNEE, its successors, legal representatives or assigns, we will, at any time, when called upon to do so by the ASSIGNEE, its successors, legal representatives, or assigns, sign all lawful papers, make all rightful oaths, execute and deliver all such disclaimers and all divisional, continuation and reissue applications so desired, and do all lawful acts requisite for the application for such reissues and the procuring thereof and for the filing of such disclaimers and such applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention or discovery in all countries, all without further compensation but at the expense of the ASSIGNEE, its successors, legal representatives and assigns.

Date: 8/8-96

Date: 31/7-1996

Date: 6-8-96

H. U. Bisgaard  
Henrik Bisgaard-Frantzen

Allan Svendsen  
Allan Svendsen

Torben V. Borchert  
Torben Vedel Borchert